

027



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,687	11/04/2003	Stephen Kaminski	Q78089	4929
23373	7590	03/16/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			LA, NICHOLAS T	
			ART UNIT	PAPER NUMBER
			2687	

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,687

Applicant(s)

KAMINSKI ET AL.

Examiner

Nicholas T. La

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1) **Claim 7** is rejected under 35 U.S.C. 101 as the claimed invention is directed to non-statutory subject matter. Claim 7 is directed to "a computer program product, such as a digital storage medium, comprising computer program means for performing the steps of" an invention. A claim of an invention should be drawn to one of the following: process, machine, manufacture, and composition of matters. Applicant is advised to refer to MPEP section 2106 and make necessary amendment to the preamble of the claim to overcome the rejection and to make statutory for patentability under 35 U.S.C. 101.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2684

2) Claims 1-4, 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US Patent No. 5,412,375) and further in view of Hsu et al. (US Patent No. 6,169,898).

Regarding **claim 1**, Wood teaches a telecommunication method comprising the steps of:

selecting a sub-set of air interfaces from a set of air interfaces, the sub-set containing air interfaces (Col. 2, line 37 to 53) ,

providing the sub-set to a node of a radio access network having the set of air interfaces (Col. 2, line 37 to 53),

selecting an air interface from the sub-set by the node (Col. 2, line 54 to 57).

However, Wood does not explicitly teach a method comprising receiving of a required quality of service parameter set from the core network by a radio network controller as well as for the purpose of providing the required quality of service to the user equipment. In an analogous art, Hsu et al. teaches apparatus, and associated method, for maintaining a selected quality of service level in a radio communication system. Hsu et al. further specifically teaches a method of receiving of a required quality of service parameter set from a core network by a radio network controller and to maintain the level quality of service respectively (Figure 1 shows structure of the system, which includes a core network comprising a HLR 28 and MSC 24 and their associated elements, radio network controller 22 and its associated elements; Col. 4, line 65 to Col. 5, line

Art Unit: 2684

10; Col. 6, line 7 to line 39). Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify Wood method of selecting air interface to include the requirement of maintaining the level of quality of service such as taught by Hsu et al. in order to have resources better allocated at respective node to give better service.

Regarding **claim 2**, Wood further teaches a method further comprising receiving of a monitoring list by the radio network controller, the monitoring list containing the set of air interfaces by means of which the node can actually establish a telecommunication link with the user equipment (Figure 4, Col. 2, line 26 to 36; Col. 3, line 44 to 50).

Regarding **claim 3**, Wood further teaches a method further comprising the steps of:

receiving of data being indicative of at least one of the air interfaces of the set of air interfaces, the at least one interface having no more free data transmission capacity (Col. 2, line 37 to 68 as the resources for the selected air interface may have been assigned for another call),

eliminating the at least one air interface from the sub-set (Figure 1, step 17 to 24; Col. 2, line 37 to 68 eliminating as rejecting of selected air interface).

Regarding **claim 4**, Wood further teaches a method, whereby the selection of the air interface is performed by the node based on load balancing

Art Unit: 2684

and/or actual availability of the air interfaces (Col. 2, line 37 to 68; Col. 3, line 44 to 50; base 44 selects the selected air interface from the list of compatible interfaces and if there are resources of the air interface is available, otherwise rejected and notify the controller).

Regarding **claim 7**, claim 7 is a computer program product with computer program means necessary to implement the method of claim 1. Therefore, claim 7 is rejected for the same reason.

Regarding **claim 8**, claim 8 is an apparatus claim for a radio network controller of a radio access network necessary to implement the method of claim 1. Therefore, claim 8 is rejected for the same reason as claim 1.

Regarding **claim 9**, claim 9 is an apparatus claim for a node of a radio access network necessary to implement the method of claim 1. Therefore, claim 8 is rejected for the same reason as claim 1.

Regarding **claim 10**, claim 10 is a system claim for the method of claim 1. Therefore, claim 10 is rejected for the same reason.

3) Claims 5-6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US Patent No. 5,412,375) in view of Hsu et al. (US Patent No. 6,169,898) and further in view of Kallio (US Pub. No. 2002/0147008).

Regarding **claim 5**, Wood and Hsu et al. teach a telecommunication method to select a subset of air interfaces to provide a required quality of service to user equipment. However, Wood and Hsu et al. does not teach a method further comprising the steps of:

establishing a first telecommunication link by means of the selected one of the set of air interfaces and sending of data frames having a first data frame format of the selected air interface,

mapping of the first data frame format to a second data frame format of an alternative one of the set of air interfaces,

replacing of the selected air interface by the alternative interface and sending of the mapped data frames having the second air interface format via a second telecommunication link which has been established by means of the alternative air interface.

In an analogous art, Kallio teaches a GSM networks and solutions for providing seamless mobility between GSM networks and different radio networks. Kallio further teaches a method of having ongoing call via GSM cell using call protocol used for GSM network (paragraph [0032], [0043]), mapping the call protocols that used for GSM network and WLAN network (paragraph [0043]), and releasing the reserved resources the support GSM air interface for a replacing WLAN using a call protocol used for WLAN and "starts to used the WLAN radio" (paragraph [0050]). Therefore, it would have been obvious to one ordinary skilled in the art at the time of the invention was made to modify Wood

Art Unit: 2684

and Hsu method to include the method of providing seamless mobility between a GSM network to WLAN network such as taught by Kallio where area high quality of service is desirable.

Regarding **claim 6**, Wood, Hsu et al., and Kallio do not explicitly teach selected air interface being an UMTS air interface, the first air interface format being HSDPA, the alternative air interface being WLAN and the second air interface format being WLAN frames. However, Kallio teaches selected air interface being an GSM air interface, the first air interface format being call protocol supported by GSM, the alternative air interface being WLAN and the second air interface format being call protocol supported by WLAN. Therefore, it would have been obvious to one ordinary skilled in the art at the time of the invention to enhance flexibility by another method given other possibilities such as selected air interface being an UMTS air interface, the first air interface format being HSDPA, the alternative air interface being WLAN and the second air interface format being WLAN frames.

Reference Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gopikanth (US Patent No. 6,799,038) discloses a method and apparatus for wireless network selection.

Art Unit: 2684

Stumpert et al. (US Pub. No. 2004/0157600) discloses a method for determining whether to grant access of a user equipment to a radio access network.

Bridges et al. (US Patent No. 6,546,246) discloses an intelligent roaming system with over the air programming.

Dunn et al. (US Patent No. 6,591,103) discloses a wireless telecommunications system and method of operation providing user's carrier selection in overlapping heterogeneous networks.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas T. La whose telephone number is (571)-272-8075. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2684

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nicholas La



NICK CORSARO
PRIMARY EXAMINER

